POMEGRANATE PROPAGATION MEASURES AND THE SCIENTIFIC BASIS OF PLANTING PLACE SELECTION

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Abstract. Among fruits, pomegranate is a subtropical crop. Therefore, pomegranate breeding and breeding is one of the problematic scientific researches. The distribution of pomegranate origin, and taking into account these environments depending on the soil and climatic conditions, instead of geographical distribution, it is time to start breeding table pomegranate fruits from the existing samples through natural selection. As we mentioned above, pomegranate has a history of at least 2000 years in Malakat. According to historical sources, Pomegranate was regularly served on the table of Sahibquran Amir Temur. Even during Babur's time, the taste and sweetness of "Dono Kalon" and "Sammon" pomegranates were noted in Margilon. Among subtropical plants, pomegranate (Punica granatum L) is of particular importance with its important properties. Pomegranate is completely different from other fruits because its fruit is a natural ecological product.

Keywords: Among fruits, pomegranate, subtropical, Punica granatum L, mentioned, natural.

Introduction. Because the Pomegranate tree, which is considered a waste, is valuable wood, and the peel of the pomegranate fruit is considered a valuable medicine. After a thorough analysis of the above, it is necessary to first study the cultivated areas of the pomegranate crop in Er Kurra. Pomegranate natural area. Pomegranate is naturally grown in Central Asia, Turkey, Azerbaijan, the southern part of South America, North-West India, North-Eastern Afghanistan, the Greater Caucasus Mountains in the South Caucasus, Asia Minor, and the coast of the Arabian Sea.

Pomegranate growing wild is widespread in eastern Transcaucasia, in the Lenkorn-Astarin massifs of Azerbaijan. In Uzbekistan and Tajikistan, it is found on the slopes of Hisar, Darvoza and Karategin mountain ranges. Pomegranate, as a subtropical crop, is very resistant to drought, but also grows well in irrigated land. More Stony steppe, mountain foothills growing in saline lands have been of constant interest to our scientists since ancient times. N.I. Vavilov 1931 many scientists, including A.D. Strebkova O.P. Kulikov 1955, 1965 O.P. Kulikov, A.S. Masino 1969, A.S. Kutuzova 1977 M.M. Mirzaev 1977; A.A. Golny 1972; G.K. Tokhtasinova; M.A. Turakulov; N.B. Japakov; P.J. Mirmajidov; I.R.Rakhmonov 2017 who conducted scientific research works in different periods and periods. However, today, one of our urgent tasks is the resource-efficient modern technology for growing seedlings of reliable, ecologically clean pomegranate fruit varieties. Taking this into account, the need to create new modern agro-

technologies of pomegranate selection, seed production and cultivation is being demanded by life itself. The composition of pomegranate fruit is 75% of the highest quality juice, it contains 20% sugar, 3% fat, up to 15% protein, up to 4% citric acid and many vitamins. Pomegranate juice restores appetite, lowers body temperature and blood pressure, reduces the damage caused by viruses and microbes in the stomach.

Methods. For pomegranate seedlings, cuttings are selected from fruitful, healthy bushes selected in advance from the pomegranate orchard. It preserves the average yield characteristic of this variety in cuttings and keeps it intact.

The branches used for the pen are cut before burying the pomegranate in the fall. Side branches and immature branch tips are cut off. Cut and separated cuttings are tied in bundles of 50-100 pieces, and then the bundle is sent to the place where it is stored in the winter, with the type of pomegranate, the place and date of cutting, and the label written on it. There, a plan is made to bury cuttings, and each variety is kept in a separate pit. Pits should be dug from the place where the seepage water is at least 2 meters below. Its depth is 0.75-1.0 m and its width is 1.0-1.5 meters depending on the length of the pen. Based on the recommendation of Academician M. Mirzaev, bundles of branches are buried in the pit in 2-3 layers, between each layer 4-5 cm thick wet soil is placed. The upper floor should be level with the upper edge of the pit. After that, 30-40 cm thick wet soil is poured over the pit where cuttings are buried, and the top is leveled. In order for rainfall and pond water to flow, the pit is sloped and made into a ditch.

Pomegranate cuttings should be prepared mainly in autumn. In some cases, it is allowed to prepare it in wet mode, that is, until the pomegranate bush opens up and sprouts. In such cases, the branches are immediately removed from the side branches, cut into pencils and buried in moist soil until planted in bundles. The cuttings made in Koklam are made from branches cut during thinning of pomegranate branches. According to academic gardener M. Mirzaev, the cuttings made in the summer hold less than the cuttings made in the fall. Because the pomegranate cuttings prepared and buried in the fall are saturated with moisture in the soil, the germination capacity is high.

Results and Discussion. The land where the kalamcha is planted should be suitable for flat irrigation, protected from the sun, dry and cold winds, especially in spring and summer, well supplied with water, the soil should be lightly or moderately compacted, fertile, 35-40 cm deep and well plowed. According to M.Mirzaev (1977), it is not recommended to establish a nursery on saline or swampy soil. Such lands must be washed with salt. The land allocated for the nursery is thoroughly plowed to a depth of 35-40 cm in November-December, and 100-120 kg of pure phosphorus, 15-20 tons of rotted manure or other organic fertilizers are applied per hectare. In order to maintain moisture in the soil, the plow is plowed in early spring. If the soil is compacted, it is better to plow the surface without raking or turning.

Planting and care of cuttings: in the southern regions of Uzbekistan, cuttings should be completed on March 15-20, and in the northern regions on April 5-10. In

this case, it is necessary that moisture does not escape from the cut cuttings. It is also necessary to ensure that the moisture in the soil is sufficient, if it is too late, it may not turn blue.

After digging out the buried cuttings from the ground, the damaged and rotten ones are separated, and the healthy ones are cut with a sharp ax 20-25 cm long, vine shears, or on a special machine, the lower end is slightly slanted under the bud in the length of the cutting. The upper end of the prepared cutting is cut 0.7-1.0 cm from the top of the last bud, and from the lower base at the place of the bud or cutting branch, cut slightly below in an oblique direction. Then the appearance of callus and young roots becomes easier. 50-100 cuttings are first tied and soaked in running water for 10-12 hours, during which the body of the cuttings becomes saturated with water. After that, it is ready for planting. If the ready-made cuttings are not planted for various reasons, they are buried in moist soil until planting and are kept here until planting.

The cuttings are planted with the help of a tractor at a distance of 70 cm between the rows in the east-west direction. During harvesting, the upper part of the cutting is buried in the soil, which allows it to hold well. When cuttings are planted, the upper end of the cuttings should protrude from the surface of the total land area by about 5 cm. After the cuttings are planted, a nursery plan is drawn up, showing the number of cuttings in each row and for each variety.

As soon as planting is completed, it is watered successively. In irrigated fields, as soon as the soil becomes fertile, the crop is cultivated between the rows, and at the same time, soil is poured into the open-top pens and planted.

During the growing season, cuttings should be watered on time, weeds should be removed regularly, and special attention should be paid to moisture retention. Otherwise, the cuttings will not take root well and lag behind in growth and development. Depending on the weather and soil conditions, cuttings are watered 10-12 times during the entire growing season and cultivated; 1-2 times in April, 3 times in May, June, 2 times in August, and the last water is given in the middle of September in northern regions.

Between the seedling rows is softened three to four times per season. Before the next watering in June, nitrogen is given at the expense of 40-50 kg of pure substance per hectare. If at least three years of rotted manure is given, soil moisture will be better preserved, productivity will increase, and air exchange will improve. If pests appear in the pomegranate orchard, they are immediately sprayed with toxic chemicals.

Conclusions. By the end of the fall, the branches of the pomegranate seedlings will grow to a height of 50-60 cm. Seedlings are dug in November. If at this time the soil of the nursery is dry, it is watered a few days before the seedling is dug up. Seedlings are usually dug up to a depth of at least 35-40 cm using a special plug, then sorted and divided into two types: the first type has a well-developed root system of 30-60 cm. branches with; in the second variety, the roots are shorter than 20 cm and the height does not exceed 20-25 cm, and they are left for planting again next year.

Based on the recommendations of academician M.M. Mirzaeva, the seedlings left for winter storage are sorted, planted in a pit in one or two rows, and soil is piled on top of them. The soil is compacted so that the gaps between the rows do not open. Seedlings sent to distant places are planted in groups of 100-130, and so that the roots do not dry out, wet straw or sawdust is placed in each layer. The root of the fertilized seedling is sewn tightly in a chip or bag and a label with the variety is attached. Tarpaulins are covered and tied to seedlings that are sent to nearby places. Seedlings delivered to the planting destination are immediately buried in moist soil.

References

1. Nazirova Raxnamo Muxtorovna, Mamajonov G‘aybullo G‘ayratjon o‘g‘li, Asqarov Xasanboy Oldorovich “Technology of long term storage of some types of fruits and vegetables using sorbents” International enjinering journal for research & development IEJRD стр. 1-4; http://www.iejrd.com/index.php/%20/article/view/1109
2. Г.Мамажонов, Д.Турсунова, З.Нурматова. Полезные свойства минеральных удобрений для сельского хозяйства. Проблемы образования. современной Статья науки принята ик публикации в журнал № 3 (148), 2020 год. https://cyberleninka.ru/article/n/usefulproperties-of-mineral-fertilizers-for
3. Г.Мамажонов. Изменения химическогосостава плодов яблони зависимости от выращивания в регионах. Мелиорация как драйвер модернизации АПК в условиях изменения климата. Материалы Международной научно – рактической интернет- конференции 13-20 июля 2020 г.,г. Новочеркасск.
4. ГГ Мамажонов - Мелиорация как драйвер модернизации АПК в …, 2020 - elibrary.ru
5. M.U.Hakimov, G. Mamajonov Changes in the chemical composition of apple fruit depending on the cultivation in the regions.
6. https://journals.researchparks.org/index.php/IJOT/article/view/1704/1667